NPIC/OEG-075/86 **OIT/TRIS**
27 June 1986 **LOGGED**

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MEMORANDUM FOR: Edward Malloney
Director, OIT

THROUGH : Jim Hirsc
Associate Deputy Director for Science and Technology

STAT FROM :
NPIC ADP Control Officer

SUBJECT : Request for Support to S&T Directorate ADP Systems

REFERENCE : Your Memo, dated 19 June 86, Agency Information Standards

1. This memorandum is a formal follow up to the discussions you and I had following the recent OIT Customers & Standards Committee meetings and Information Systems Board (ISB) meetings. It also is the preliminary S&T reply to your referenced memo. We are prepared to support your development of ADP standards and believe they will allow the S&T to tie its large Office Automation (OA) holdings into the resultant open system architecture you will define and implement. We have requirements for standards and connectivity that will allow us to migrate from our current systems to a mixed environment, consisting of our current Wang and OIT assets as well as new departmental system networked together, to allow us access to corporate, departmental and local data. Your office currently has people assigned to several of our offices to identify our detailed requirements and in some cases to help us plan for and install solutions. This memo identifies our overall strategy and requests your support in identifying, planning and implementing a global approach to our requirements in concert with your corporate plans.

2. Our strategy is to network our various OA systems across the directorate with the OIT corporate systems as a logical step in the evolution to integrated, OIT supported OA and ADP systems for CIA which the ISB, common sense and our budget seem to dictate. Our present investment in Wang systems does not preclude us from introducing some other vendor but will be a driving force in the schedule and nature of any such movement. In fact, three of our offices are currently replacing, augmenting or testing alternate vendor based OA and ADP systems. FBIS is developing a DEC based OA and departmental ADP system, OD&E has just finished a study and has letters of commitment from Wang and DEC to develop software to allow full document and E-mail exchange between their products. ORD has an APPLE Macintosh test bed and will be working with

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of your office to test an APPLE network to OIT interface.

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3. Our current request is for support in the first phases of integration of our departmental systems within the directorate and the establishment of interfaces between our systems and yours. We will be able to budget some FY87 funds for a limited amount of equipment to effect this connectivity. Our offices are prepared to start working with OIT on this integration effort immediately and in many cases have started such activities on their own. The next six paragraphs outline our functional requirements for the next year or so.

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4. The S&T is currently spread across at least [   ] buildings in the metro Washington area and we are often forced to hand carry floppy disks to headquarters to deliver documents to the directorate front office. OD&E has connected their front office Wang to the Wang system in the S&T front office. Our first requirement is for your office to work with us to explore alternatives, develop a plan and connect the other five offices in the directorate to the front office this calendar year. There are several constraints such as no free ports on the Alliance system in the front office of the S&T. I can provide you with this data and your people can work with the directorate and office ADP Control Officers to get specific information on location and type of Wang equipment in each office's front office.

5. Within each office there are multiple locations where we have OA equipment and users. Our second requirement is to develop a plan and connect the office level OA systems to each office's front office taking into consideration the planned moves to Reston and Headquarters. Our initial requirements from a functional perspective are for document transfer and Wang E-mail across system boundaries with an absolute minimum of user gyrations. This capability can be phased in as rapidly as the offices and OIT can support it. Many offices are currently working this problem independantly.

6. A preliminary look at these two requirements finds that they can be met by using an existing Wang VS system, developing an enduser oriented procedure and software to go thru the OIT systems or by introducing a new Wang VS just for this type of service to all directorates. There are very likely variations to these as well as other alternatives to be evaluated.

7. The third functional requirement is to allow S&T departmental OA users to have access to AIM E-mail and other VM functions from their OA terminals. This could be a testbed for similar networking projects within the Agency. It could be phased in over the next year, starting with the ADP Control Officers and a few others and growing to provide service to all those who have a legitimate need to work across directorate organizational boundaries. The specific number is not known but experience shows that the latent demand for such services surpasses all expectations.

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8.   The fourth requirement, the next logical step, is to use your soon-to-be-a-standard DCA and allow document transfer between our systems and your systems. While this is possible today from a technical perspective, the labor intensive complexity of the process precludes it being used a second time by any but the most desperate users. I have had people tell me that it is much faster to retype a document on the target system than to transfer it electronically. I realize that this is not a "feature" that your office imposes on us but is a result of the Agency having seperate OA and ADP systems and is the very type of problem that the current ISB thrust is intended to resolve and prevent from reoccurring.

9.   The fifth connectivity issue we should be jointly examining is the delivery of Agency administrative cables from the domestic and foreign field directly to the S&T addressee's desk in softcopy. Three of our six offices are separately working this problem with OIT and OC and a common solution would require substantially fewer maintenance resources and would make changes to the cable system easier to impliment in the future. The offices working this problem have reasonably similar requirements which lend themselves to being met in two phases. First is the directing of inbound cables to departmental systems and then the generation and transmittal of outbound traffic. The ADP Control Officers in NPIC, OSO and OD&E can provide your people with the specifics and the status of these efforts. Given that these independent efforts are underway, it is imperative that any standards and services in this area be addressed this fiscal year.

10.   Your support in response to our strategy and these initial functional requirements is appreciated. I will be available to work with your office and the S&T ADP Control Officer to prioritize these requirements and put them into an overall contextual perspective. I believe we should mutually develop a high level plan, to include a schedule, for addressing these requirements. I can be reached at

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OIT-0501-86
19 JUN 1986

MEMORANDUM FOR: Executive Director

VIA: Deputy Director for Administration

FROM: Edward J. Maloney
                 Director of Information Technology

SUBJECT: Agency Information Technology Standards

REFERENCE: Your Memo, dtd 13 May 86, Same Subject

1. We are very pleased by your strong statement (Reference) in support of an active approach in the standards arena. Both this office and the Customer/Standards Committee agree that standards and a standards development process are essential to excellence in Agency information systems. It is my intent to move out immediately to implement your guidance. I am prepared to allocate OIT resources as required to meet or exceed your ambitious schedule. With your support, I am sure the necessary Agency-wide cooperation will be forthcoming. I will need the technical expertise of our customers and the attention of their senior management and technical personnel. I believe the effort will be large, but the benefits will be very significant.

2. As you requested, we are prepared to develop a basic set of standards for the Agency's information system network by 1 October 1986. These standards will address the following areas:

   -- communications network architecture

   -- workstation and terminal connection to mainframes

   -- electronic mail exchange among computers

   -- integration of personal computer (PC) and mainframe software

   -- data base management systems

   -- levels of service

By 1 December we will also develop a set of standards and guidelines for distributed processing.

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SUBJECT: Agency Information Technology Standards

3.   To enable us to develop and implement a complete set of standards which will meet the processing needs of our customers, we plan to ask each directorate to submit requirements statements in the areas of connectivity to the OIT network, local area networks, and departmental computing. Once these standards and guidelines are approved, with the advice and consent of the Customer/Standards Committee, deadlines will be established for standards compliance for all Agency components. We will ensure that these deadlines are reasonable and well-thought-out.

4.   OIT will devote additional resources--up to three full-time senior staffers--to our standards activities. I also expect a renewed and enhanced commitment to this effort by our customers. We will ask all directorates to revalidate their appointments to the Customer/Standards Committee. With the emphasis we are now placing on getting the standards in place, members will be required to make a substantial commitment of time to the standards effort. We will need members who are technically knowledgeable and senior enough to speak for their directorate. I will draft a memorandum detailing our requirements and expected resource commitments to the deputy directors within the next two weeks.

5.   As we proceed with the standards task, I will be keeping you and the ISB informed of our progress and problems. I hope to periodically brief the ISB on standards developments. I am certain that working together we will make significant progress in the months ahead. The process will encourage a new relationship between this office and its customers, breaking down barriers and encouraging the cooperation and joint effort that is essential, if we are to develop the information systems this Agency will require in the Nineties.

6.   If you have any questions on the standards issues, please do not hesitate to call me. [   ] of our Architectural and Technology Planning Staff is my action officer for the standards program, as well as Executive Secretary to the Customer/Standards Committee. I can be reached on [   ]

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Edward J. Maloney

cc: Information Systems
         Board Members
      Customer/Standards
         Committee Members

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SUBJECT: Agency Information Technology Standards

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13 May 1986

MEMORANDUM FOR: DDI
                          DDA
                          DDS&T
                          DDO
                          Information Systems Board Members

FROM   : Executive Director

SUBJECT   : Agency Information Technology Standards

1. We have made some important information technology decisions over the past year and committed ourselves to a new plan of action that will enable us to upgrade our systems:

- We have resolved to stop depending on costly "home-grown" solutions for our information technology needs. We intend instead to rely on solutions that have won general acceptance throughout the communications and data processing industry. The decision to move into the IBM 3270-compatible world is an important example.

- We have embraced the concept of "cooperative processing" in order to put more computer power on the desk and end our total dependence on the sometimes fickle mainframe systems. We have decided to phase out Delta Data terminals and a bevy of word processors in favor of personal computers.

- A new Headquarters communications system is underway. It will enhance the capabilities of the new workstations and will guarantee us sufficient future capacity for the inevitable growth in our communications requirements.

- We have adopted a strategy that will allow us to bridge the gap between the old system's architecture and the new technology with a minimum loss of function. The IBM 3270 PC/AT will be the Agency's standard workstation until mid-1987, when OIT will have completed development of the software necessary to permit the use of AT-compatible workstations. By September 1987, customers will be able to choose from a family of compatible PC's to meet their needs.

- OIT customers have taken on a new role in advising and participating in our information technology decisions. OIT has re-organized to support them better. A PC Center that will supply hardware and software is planned.

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- A Customer Standards Group has been formed by OIT and is working to establish the technical, architectural and service standards we will adhere to as we build our new networks.

2. Short-term, our progress may be slowed by budget constraints and the need to devote considerable energy to the logistics of physically moving many of our people over the next eighteen months. But our long-range direction is very clear. We intend to benefit from the productivity and quality improvements that modern information technology offers and, at the same time, position ourselves to be able to incorporate future technological breakthroughs reasonably smoothly into our systems. By moving toward industry-standard hardware, software and architectures wherever possible, we hope to promote the maximum sensible compatibility in our systems and ease costs, as well as our installation, training and maintenance burden. Specifically, we seek to avoid the continuing expense of force-fitting basically incompatible technologies together in our informations systems. While moving forward on these fronts, we will also give more systematic attention to the security implications of our evolving system, particularly the use of personal computers with their attendant local storage.

3. Additional steps need to be taken in order to support the decisions we have made. Customers need to know what standards will be supported in the future so they can make plans and budget for the retro-fitting of old systems and the development of new ones. I have asked:

- that OIT, with the advice of the Customer Standards Group, promulgate by 1 October the first set of communications, interface, and service standards for the Agency. The group will also set meaningful deadlines for compliance by all Agency systems that require connectivity to central data processing and communications facilities. OIT will be responsible for ensuring wide distribution of information about these standards and the implications of these decisions.

- that OIT, with the advice of the Customer Standards Group, aggressively explore the implications of moving toward a distributed processing architecture. While this architecture is evolving, it is important that the networking of workstations be compatible with the central data processing and communications services. To promote such compatibility, the Customer Standards Group should, by 1 December 1986, identify the workstation networking options possible, and publish and give wide distribution to a set of guidelines designed to help managers make sensible decisions.

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- that OIT, with the advice of the Customer Standards Group, after outlining the implications and consulting widely with those involved, will announce the deadline after which the Agency will no longer procure stand-alone word processing or computer equipment for the Washington area which does not meet Agency standards. Again, information about this decision, the basis for it, and its implications will be widely distributed. Exceptions to these procurement rules will be determined by OIT, with the advice of the Customer Standards Group, on the basis of the need for connectivity to Agency systems or security requirements which require stand-alone facilities.

- The Information Systems Board will monitor the progress of these efforts. Appeals to the decisions on standards and deadlines can be made to the Director of OIT, who, with the advice of the Customer Standards Group, can grant exceptions as warranted.

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James H. Taylor

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